

REMARKS

This is in response to the Office Action dated November 22, 2006, in which claims 1-12, 24-28 and 30-32 were rejected. The traversal of the prior restriction requirement was acknowledged as being timely, and the restriction requirement was made final.

The applicants respectfully submit that claims 1-12, 24-28 and 30-32, i.e. all currently pending claims, are presently in condition for allowance. The applicants accordingly request reconsideration and withdrawal of the rejection of these claims in light of the remarks herein.

CLAIMS 2-12, 25-28, AND 30-32 COMPLY WITH 35 U.S.C. 112

The Office Action includes a rejection of claims 9, 25, 26 and 30 under 35 U.S.C. §112, first and/or second paragraphs, and a rejection of claims 2-12, 27-28, and 30-32 under §112, second paragraph. The applicants respectfully submit that these rejections are in error, and request that these rejections be reconsidered and withdrawn in light of the present remarks.

The rejection of claim 9 begins by characterizing the claim as reciting that the vertical stabilizer is a longitudinal fin. Actually, claim 9 recites, in relevant part, “wherein the vertical stabilizer comprises a substantially longitudinal fin” (emphasis added). The Office Action replaced the term “comprises” with the term “is” without explanation, as the basis for the rejection. The rationale for the rejection of claim 9 disappears when “is” is exchanged for the proper term “comprises”.

Claims 25 and 26 were rejected under §112 under the rationale that “MR heads are not recording heads”. The applicants respectfully point out that this is not an accurate assessment of the art. A background review might fruitfully make note, for example, of such reference works as “Design and Analysis of Magnetoresistive Recording Heads”, Edgar M. Williams (Wiley-IEEE Press, 2000), in which even the title indicates that MR heads that are indeed recording heads not only exist but have a textbook devoted to their study. Those of ordinary skill in the art would recognize claims 25 and 26 as providing adequate disclosure under §112, first paragraph, and as definite and descriptive under §112, second paragraph.

Claim 30 was rejected alternately under paragraphs 1 or 2 of §112 based on an objection to the recitation, in relevant part, that the means for exploiting the ambient fluid flow comprises an aerodynamic surface on any face of the slider. The applicants respectfully submit that any face of the slider may have an aerodynamic surface, and that any such aerodynamic surface may be comprised in the means for exploiting the ambient fluid flow. This does not limit other faces of the slider from also comprising aerodynamic surfaces that are also comprised in the means for exploiting the ambient fluid flow.

The applicants therefore respectfully submit that claims 9, 25, 26, and 30 comply with the requirements of §112 and request that these rejections be reconsidered and withdrawn.

Claims 2, 27, and 28 were rejected under §112, 2nd paragraph on the rationale that “minimize” is a relative term. The applicants respectfully submit that “minimize” is not a relative term; that the specification is replete with relevant disclosure that support use of this term in relation to the subject matter of these claims; and that a person of ordinary skill in the art would readily comprehend the definite and distinct subject matter of these claims and the supporting disclosure in the specification. The applicants further point out that neither the claims nor the specification indicates any limitation on the degree to which a skew angle may be minimized or reduced, and that the subject matter of these claims is thereby not limited by any relative degree.

Claims 3 and 12 were rejected under §112, 2nd paragraph on the rationale that they include subject matter defined functionally rather than solely structurally, as if this were a determinative distinction. On the contrary, the MPEP makes clear that “There is nothing inherently wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper” (MPEP 2173.05(g)). The applicants respectfully submit that, in light of the proper guidelines for evaluating functional limitations and particularly in light of the extensive structural support in the specification associated with the functional language recited in claims 3 and 12, claims 3 and 12 are eminently definite in reciting their subject matter.

The applicants therefore respectfully submit that claims 2-12, 27-28, and 30-32 comply with the requirements of §112 and request that these rejections be reconsidered and withdrawn.

KOHIRA DOES NOT ANTICIPATE CLAIMS 1, 24, 27, OR 30-32

In the Office Action, claims 1, 24, 27 and 30-32 were rejected under 35 U.S.C. §102(a) with reference to U.S. Patent No. 6,628,480 issued to Kohira et al. However, the applicants respectfully submit that Kohira simply does not anticipate any of claims 1, 24, 27 and 30-32. The rejection relied particularly on figures 1, 2, and 15 of Kohira. The applicants respectfully submit that figures 1, 2, and 15 of Kohira do not disclose all the subject matter of any of claims 1, 24, 27 and 30-32. For example, neither the figures nor the description of Kohira discloses a suspension interface by which the slider is rotatably connected about a yaw axis to the suspension, as in claim 1 of the present application. In fact, Kohira makes no mention of a yaw axis, of yaw rotation, or of yaw in any context, or of a slider being rotatably connected in any context. In short, Kohira simply does not anticipate the subject matter of claim 1, and the brief rationale for rejecting claim 1 in the Office Action simply ignores areas of subject matter in claim 1 that do not fit in with the rationale.

Furthermore, the description of the relevant components of Kohira sheds no sensible light on the depiction in the figures. The paragraph on col. 9, lines 19-25 of Kohira is representative, and is perhaps the most potentially relevant, since it describes FIG. 15:

Suspension 20 consists of load beam 21 and gimbal 22 and mount 23 here, and it is connected with carriage 24 in mount 23. Gimbal 22 can be realized by bending to the direction in which only angle minute decided [sic] from a pitch stiffness of gimbal 22 presses leading edge 2 sides of magnetic head slider 1 to magnetic disk 25 in order to add pitch moment M of the desire [sic].

It is entirely unclear to a person of ordinary skill in the art what might be disclosed by “to the direction in which only angle minute decided” or “to add pitch moment M of the desire”. This description does not present a coherent disclosure, let alone a coherent

disclosure of the specific subject matter of claims 1, 24, 27 and 30-32. It is all the more clear that Kohira simply does not disclose a suspension interface by which the slider is rotatably connected about a yaw axis to the suspension, as in claim 1 of the present application.

Kohira also does not anticipate claim 27 because, for example, it does not disclose a means for exploiting an ambient fluid flow to minimize a skew angle of the slider relative to the ambient fluid flow. In fact, Kohira makes no mention at all of a skew angle. Referring again to the passage from Kohira cited above that purports to describe figure 15, it makes reference only to pitch, and it even apparently suggests, if any meaningful description might be extracted from it, that the gimbal can bend in a direction that is “only” related to a pitch angle, not to any other rotational axis, which would explicitly exclude the possibility of a slider being rotatably connected about a yaw axis or of minimizing a skew angle of the slider. Kohira therefore does not anticipate either of claims 1 or 27. In fact, other than the trivial fact that Kohira discloses a slider, the Office Action does not make specific mention of any of the subject matter of claim 27 in reference to the rejection of said claim, and therefore manifestly does not particularly point out a minimally sufficient rationale on which a rejection might properly be based.

Claim 24 is dependent on claim 1, and claims 30-32 are dependent on claim 27. The applicants respectfully submit that these dependent claims are also not anticipated by Kohira due at the very least to the lack of anticipation of their respective parent claims per the discussion above, before considering additional inventive subject matter unique to the respective dependent claims.

The applicants therefore respectfully submit that the rejection of claims 1, 24, 27 and 30-32 should be reconsidered and withdrawn, and request that the Office take action accordingly.

KOHIRA DOES NOT SUGGEST CLAIMS 2-12, 25, 26 OR 28

In the Office Action, claims 2-12, 25, 26 and 28 were rejected under 35 U.S.C. §103(a) with reference to Kohira. The applicants submit that Kohira does not suggest these claims because Kohira does not disclose or suggest all the elements of their respective parent claims, i.e. claims 1 and 27, as discussed above.

Additionally, the applicants respectfully submit that Kohira does not suggest any of claims 2-12, 25, 26 and 28 for the separate and independent rationale that Kohira does not disclose or suggest elements unique to these individual claims. The Office Action concedes that Kohira does not specify any details of the gimbal of claims 2 and 28 or the head of claims 25 and 26, but attempts to argue without evidentiary support that the subject matter of these claims would simply have been obvious to one of ordinary skill in the art. The applicants respectfully submit that these arguments simply assume that the present invention is obvious as their starting point, before re-asserting this proposition as a foregone conclusion, and that the rationales for these rejections are therefore only self-referencing reiterations of the initial, unsupported assertions of obviousness.

In particular, with reference to claims 2 and 28, the Office Action asserts that a person of ordinary skill in the art would have used any known gimbal, and that this in itself supplies the suggestion to arrive at the subject matter of claims 2 and 28. This argument also cites a passage from the applicants' specification, while ignoring and leaving unrefuted the immediately subsequent passage from the applicants' specification noting that the understanding in the art has been directly opposed to the subject matter of the present claims. Claims 2 and 28 present subject matter that is conceded in the Office Action to be unlike the disclosure of Kohira, and that surely could be demonstrated by documentary evidence if it were as simple a matter as selecting any known gimbal in a crowded field of art. The applicants submit instead that this subject matter is novel and non-obvious, and that the Office Action does not provide any substantive rationale to the contrary.

Overall, the arguments for claims 2 and 28 being obvious are a far cry from the standard provided in the MPEP, that "It is never appropriate to rely solely on 'common knowledge' in the art without evidentiary support in the record, as the principal evidence upon which a rejection was based" (MPEP 2144.03(A)). The applicants respectfully submit that the rejections of claims 2 and 28 are instead a clear case of rejections based on unsupported assertions of "common knowledge". The applicants further submit that a proper consideration

shows that claims 2 and 28 are in fact not rendered obvious by Kohira or the common knowledge in the art.

Furthermore, the Office Action includes no separate rationale for the rejection of any of claims 3-12. The applicants also submit that Kohira does not in fact disclose or suggest the subject matter of any of claims 3-12, and requests that the rejection of these claims accordingly be reconsidered and withdrawn.

KANG DOES NOT ANTICIPATE OR SUGGEST THE CLAIMS

The Office Action cites U.S. patent no. 6,680,821 issued to Kang, apart from the basis of any specific rejection, indicating that Kang is not applied to avoid undue multiple rejections. However, this indication is followed by the instruction that the applicants purportedly must define over Kang in responding to this rejection, thereby asserting a de facto requirement of overcoming a rejection where none has been made and where the prospect of making one has been indicated to be undue and multiplicative. Given that Kang is multiplicative or cumulative with the rejections explicitly asserted, then by definition, a claim that is allowable over the explicit rejections is inherently also allowable over Kang. The applicants respectfully submit that claims 1-12, 24-28 and 30-32 are thereby also allowable over Kang in light of the discussion above with respect to their explicit rejections, and that an explicit comparison of the claims with Kang, though superfluous, also confirms their novelty and non-obviousness over Kang.


CONCLUSION: 1-12, 24-28 AND 30-32 ARE IN CONDITION FOR ALLOWANCE

In view of the above comments and remarks, the applicants respectfully submit that the pending claims are all presently in condition for allowance. The applicants therefore hereby request that the rejection of claims 1-12, 24-28 and 30-32 be reconsidered and withdrawn and that these claims be allowed.

Payment under 37 C.F.R. 1.17(a) for an appropriate extension of time associated with this filing is enclosed. The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By: 
Bryan F. Erickson, Reg. No. 51,655
900 Second Avenue South, Suite 1400
Minneapolis, Minnesota 55402-3319
Phone: (612) 334-3222 Fax: (612) 334-3312

BFE/elk